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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,139

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EXAMINER

LEE, DORIS L

ART UNIT

PAPER NUMBER

1764

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/596,139	<b>Applicant(s)</b> YAMADA ET AL.	
	<b>Examiner</b> DORIS L. LEE	<b>Art Unit</b> 1764	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 10-23 is/are pending in the application.
- 4a) Of the above claim(s) 13-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 10-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. No new grounds of rejection are set forth below. Thus, the following action is made final. Although the claims have been amended, the grounds of rejection are still valid and the amendments will be addressed below.
2. **Claim 1** has been amended to change order of the flame retardant additive from "a hydroxide and a nitrogen oxide compound" to "a nitrogen oxide compound and a hydroxide". The claim has also been amended to add "the resin composition is flame retardant" which has support on page 5 of the specification.
3. **Claim 2** has been amended to state that the biodegradable polysaccharide further comprises at least one other polysaccharide component which has support in page 11, lines 1-3.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.

### ***Claim Rejections - 35 USC § 103***

5. **Claims 1-7 and 10-12** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Yamada et al (JP 2003-192925, see English language equivalent 2005/0143502)** in view of **Tanaka et al (US 5,693,786)** and **Yoshida (US 2002/0151631)**.

The rejection is adequately set forth in paragraph 4 of the Office Action mailed on September 1, 2010 and is incorporated here by reference. Regarding the amendment of claim 1 which states that the resin is flame retardant; Yamada teaches that in its

Abstract. Regarding the amendment of claim 2; the other polysaccharide component is taught in paragraph ([0032]) of Yamada.

***Response to Arguments***

6. The objection to claim 2 in paragraph 2 of the office action mailed on September 1, 2010 has been withdrawn in light of the applicant's amendment filed on December 1, 2010.

7. Applicant's arguments filed December 1, 2010 have been fully considered but they are not persuasive for the reasons set forth below:

8. **Applicant's argument:** Yamada and Yoshida are clearly directed towards flame retardant polymer materials, whereas Tanaka is solely directed towards an esterified starch. Nowhere does Tanaka teach that an esterified starch would be a suitable in a flame retardant material.

**Examiner's response:** *Tanaka is a secondary reference which teaches that esterified starch is appropriate for use in moldings (Abstract). It is noted that various organic and/or inorganic fillers can be incorporated into the composition of Tanaka (col. 7, lines 25-35). As Yamada and Yoshida are both drawn to molded objects (Yamada, [0074] and Yoshida, Abstract), with additives, the combination is appropriate because they are in the same field of endeavor and is maintained above.*

9. **Applicant's argument:** None of the cited references provide any reason which would have prompted one of ordinary skill to modify the inventions disclosed by Yamada, Yoshida and Tanaka so as to reach the requirements of the present claims.

**Examiner's response:** *As stated in paragraph 4 of the Office Action mailed on September 1, 2010, the examiner clearly uses a motivation to combine the references. To combine Yoshida with Yamada, the motivation is to have excellent flame retardancy at a low amount of addition to the resin without degrading various properties of such resin and low production of combustion residue (Yoshida, [0007]). To combine Tanaka with Yamada, the motivation is to produce a resin which has good flexibility, toughness and water-related properties for practical use (Tanaka, col. 1, lines 42-47).*

10. **Applicant's argument:** The examiner has provided no evidence that there would be a reasonable expectation of success because Tanaka does not teach that esterified starch is a suitable component of flame retardant materials.

**Examiner's response:** *Tanaka is a secondary reference which teaches that esterified starch is appropriate for use in moldings (Abstract). It is noted that various organic and/or inorganic fillers can be incorporated into the composition of Tanaka (col. 7, lines 25-35). As Yamada and Yoshida are both drawn to molded objects (Yamada, [0074] and Yoshida, Abstract), with additives, the combination is appropriate because they are in the same field of endeavor and is maintained above. As the prior art references does not explicitly state that the combination would not work, the burden is shifted to the applicant to provide the data to show that the combination is not feasible.*

### **Conclusion**

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DORIS L. LEE whose telephone number is (571)270-3872. The examiner can normally be reached on Monday - Thursday 7:30 am to 5 pm and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1764

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Doris L Lee/  
Examiner, Art Unit 1764

/Vasu Jagannathan/  
Supervisory Patent Examiner, Art Unit 1764